

6 depositing a photoresist layer on the insulation layer;

A1 Sub M1
7 exposing and developing the photoresist layer for providing a photoresist mask pattern for
8 subsequent etching of the insulation layer; and

9 removing the fill-in material from the aperture.

Sub M1
1 11. (Once Amended) In an integrated circuit manufactured using a via-first dual damascene
2 process and having a low-K dielectric material as an insulation layer on a wafer substrate, a
3 photolithographic pattern comprising:
an aperture etched into an insulation layer on a wafer substrate filled with a fill-in material
5 for isolating the insulation layer from photoresist deposited thereafter; and
6 a photoresist layer deposited on the insulation layer, in which the photoresist layer is
7 exposed and developed for providing a photoresist mask pattern for subsequent etching of the
8 insulation layer
9 wherein the fill-in material is removed after the photoresist mask pattern is formed.

A2
1 12. (Once Amended) The pattern as in claim 11, wherein the aperture is fully filled and
2 thereafter removed.

A3 Sub M1
16. (Once Amended) The pattern as in claim 11, wherein the aperture is partially filled and
2 thereafter removed.

Serial No.: 10/025,085
Filed: December 19, 2001

A marked up version of the amended claims, showing the changes by underlining of the added text and bracketing of the deleted text, is appended hereto.